

Response to the Claim Rejections Under 35 U.S.C §§ 102

Claims 1, 4, and 5 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,805,252 issued to Shimada, et al. The rejection asserts that Shimada allegedly teaches each element of the claims. Claims 2, 3, and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimada. Claims 7-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimada in view of U.S. Patent No. 5,311,338 issued to Kim, et al. The rejection asserts that Shimada teaches each element of the claims except for a multi-layer light reflective film formed by anodic oxidation of the pixel electrode, which is either known in the art or taught by Kim.

The present invention is directed toward a multi-layer light reflective film used in a reflection type liquid crystal display device. The light reflective film is formed on the surface of a pixel electrode connected to a thin film transistor, and the light reflective film has a porous surface. The porous surface gives a high reflectance because of the scattering of the light.

None of the cited art teaches or suggests a multi-layer light reflective film. The rejection asserts it is within one of ordinary skill in the art to form the reflective film of

multiple layers. However, using multiple layers provides many advantages not seen in the prior art. The multiple layers greatly scatter the reflected light because the surface area of the multiple layers is larger than the surface area of a single layer light reflective film. The multiple layers may also have different surface configurations with respect to each other, thus enabling the scattering angle to be changed. This causes scattering to occur over a wide range, allowing viewing of the liquid crystal display from any direction. A reflectance of 80% can be achieved using the multi-layer design of the present invention (see Figure 4). Based on the advantages of the multi-layer design, Applicant asserts that the use of a multi-layer design is not simply an obvious variation to one of skill in the art.

In view of the foregoing distinctions, Applicant respectfully submits that independent Claims 1, 8, and 14 are patentably distinguished over the cited art. Applicant respectfully submits that Claims 1, 8, and 14 are in condition for allowance, and Applicant respectfully requests allowance of Claims 1, 8, and 14.

Claims 2-7, 11-13, and 15-18 depend either directly or indirectly from one of the independent claims. Each dependent claim further defines the independent claim from which it

depends. In view of the foregoing remarks regarding Claims 1, 8, and 14, Applicant respectfully submits that Claims 2-7, 11-13, and 15-18 are likewise in condition for allowance. Applicant respectfully requests allowance of dependent Claims 2-7, 11-13, and 15-18.

Summary

In view of the above amendments and remarks, all of the claims should be in condition for allowance. A formal notice to that effect is respectfully solicited.

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Respectfully submitted,

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